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The argument of this paper on systematic change in institutions of higher education is that "(1) there are identifiable functions which appear to be necessary in effecting a program of planned change in an institution and/or a social process field; (2) colleges and universities do not presently seem to be engaging in systematic efforts to carry out these functions; (3) the gap between what is needed and what is done can probably be explained on several counts...but...its existence accounts for the rigidity of programs in such settings and the low level of institutional development which threatens the role of the university as a significant change agent in our society." Section I presents the logical structure of the change process and includes an 8-category classification schema developed to describe the process. Section II describes how the functions discussed in Section I are currently "illogically" attended to in American colleges and universities. Section III attempts to explain the dysfunction between the logic of the change process and academic cultural and behavioral patterns; and Section IV identifies strategies for change that the universities should adopt if they want to preserve their culture. (JS)

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EFFECTING CHANGE IN INSTITUTIONS OF HIGHER EDUCATION

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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CONTENTS

		Page
Introduction		1
SECTION I	A LOGICAL STRUCTURE FOR VIEWING THE PROCESS OF CHANGE	3
	Gathering Operational and Planning Data	5
	Inventing Solutions to Operating Problems	5
	Engineering Packages and Programs for Operational Use	6
	Testing and Evaluating Packages and Programs	6
	Informing Target Systems About Packages and Programs	7
	Demonstrating the Effectiveness of Packages and Programs	8
	Training Target Systems in the Use of Packages and Programs	9
	Servicing and Nurturing Installed Innovations	10
SECTION II	THE ILLOGICAL PROCESS OF CHANGE IN INSTITUTIONS OF HIGHER EDUCATION	11
	Gathering Data	11
	Inventing and Engineering	13
	Testing and Evaluating	15
	Informing	16
	Demonstrating	18
	Training	19
	Nurturing	20
	Summary	20
SECTION III	CULTURAL FACTORS AND BEHAVIORAL PATTERNS IMPEDING CHANGE IN INSTITUTIONS OF HIGHER EDUCATION	21
	Legitimate Cultural Factors	23
	The professor as expert	23
	Academic freedom	24
	Identification with professionsl reference group	25

	Behaviors Derived From Cultural Factors	26
	Defense of expertise	26
	Lack of role differentiation	27
	Insultation from administration	27
	Goal displacement	29
	Behavioral Types In Higher Education	29
SECTION IV	SUMMARY AND COMMENTARY	31
	The Managerial Scholar	32
	"Using" the Culture	33
	Providing Resources	35

INTRODUCTION

About a year ago, the authors were asked by the National Education Association's Center for the Study of Instruction to prepare a paper on change roles in education. The logical structure under-girding that paper was a depiction of certain functions, the performance of which, it was contended, was necessary to effect change in the social process field of education. The focus of the discussion centered on the operation of elementary and secondary schools.

If this depiction had any validity as a reconstructed logic describing the change process, it should be useful in analyzing change in other institutional settings, for example, institutions of higher education. We shall attempt this task in the present paper. Section I will review the earlier structure relating to the change process--with modifications which have been made during the past year. Section II will attempt to describe the way in which these functions are currently attended to in institutions of higher education in the United States. In a sense, Section II will be concerned with "how we behave" as staff members of colleges and universities in attempting to change our own practices.

A comparison of Sections I and II leads to the conclusion that there is a significant dysfunction between the logic of the change process and any visible efforts to mount programs of planned change in institutions of higher education. Section III attempts to account for this dysfunction--a first look at "why we behave as we do." Finally, Section IV is directed toward the identification of strategies for change in institutions of higher education.

The argument of the paper is straightforward: (1) there are identifiable functions which appear to be necessary in effecting a program of planned change in an institution and/or in a social process field; (2) colleges and universities do not, at the present time, seem to be engaging in systematic efforts to carry out these functions; (3) this gap between what is needed and what is done can probably be explained on several counts (we will try a few) but, in any event, its existence accounts for the rigidity of programs in such settings and the low level of institutional development which threatens the role of the university as a significant change agent in our society.

This paper should be viewed as a trial run on this topic. We believe that it provides one logical structure for viewing the problem. We hope that it suggests the need for developing more substantial logical structures or theoretical frameworks for studying change in institutions of higher education.

SECTION I A LOGICAL STRUCTURE FOR VIEWING THE PROCESS OF CHANGE

While little attention has been given to the study of change as it occurs in institutions of higher education, the process as it occurs in other institutional settings has been studied in some depth. In these studies, universities have been viewed for the most part as influential change agents bringing their knowledge and power to bear upon some resistant target system which is less knowledgeable and, hopefully, less powerful. The popularity of the agricultural change model has reinforced this depiction, with the college of agriculture producing knowledge through its experimentation, and then disseminating that knowledge (or, more accurately, the engineered and packaged results of knowledge gains) through an intricate system of county agents who are quasi-members of the college staff.

These studies of the change process, despite the fact that they have not been applied directly to colleges and universities, have resulted in certain identifiable functions which seem to be necessary conditions for the systematic progress of change. The eight-category classification schema which follows was derived by the authors from these empirical studies and from papers in several social process fields which have attempted to describe the change process. This schema is an effort to explicate the functions which must be performed to effect change; functions which are often oversimplified or ignored in discussions of the change process (see Chart I).

CHART I

Schema of Functions Necessary to the Program of Planned Change in an Institution or Social Process Field

	Function	Purpose
DEVELOPMENT	1. Gathering Operational and Planning Data	1. To identify operational problems
	2. Inventing Solutions to Operating Problems	2. To solve operational problems
	3. Engineering Packages and Programs for Operational Use	3. To operationalize solutions
	4. Testing and Evaluating Packages and Programs	4. To assess the effectiveness and efficiency of the packages and programs
DIFFUSION	5. Informing Target Systems About Packages and Programs	5. To make potential adopters aware of the existence of packages or programs
	6. Demonstrating the Effectiveness of the Packages and Programs	6. To convince the adopter of the efficacy of the packages or programs
	7. Training Target Systems in the Use of the Packages Programs	7. To develop a level of user competence with the packages or programs.
	8. Servicing and Nurturing Installed Innovations	8. To complete the institutionalization of the invention.

Gathering Operational and Planning Data

The first stage in this quasi-linear sequence[1] has as its purpose the identification of operational problem s. Often called institutional research, this activity is intended to describe and analyze what is going on with sufficient precision so that breakdowns can be quickly detected and diagnosed. Additionally, the activity provides a base of information upon which innovations may subsequently be predicated, and in that sense parallels research as the basis upon which innovations are built.

To prevent misunderstanding, it should be made clear that the full-blown program of institutional research can encompass more of the functions in the change schema than simply the gathering of operational data. This term was introduced illustratively because it is descriptive of this function as it has been employed typically in the field of education, particularly higher education.

Inventing Solutions to Operating Problems

Operating problems which require solution can be identified in a variety of ways, but logically problem identification should emanate from an analysis of operating data. Once identified, the problem must be solved through the intervention of an inventor or team of inventors. As the name implies, invention thrives on creativity and originality. Very little is known about the conditions or circumstances that foster it. Yet it is possible to provide the resources and freedom necessary

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[1]The illusion of proceeding systematically through these process steps is just that--an illusion. In reality, steps are short-circuited, inventions appear which seem unrelated to specified problems, loopings occur in the process so that tryouts affect subsequent inventions, etc. In terms in which Abraham Kaplan discusses the process of research (in his Conduct of Inquiry) these steps are a "reconstructed logic" which purport to describe, as accurately as possible, a dynamic process, but with no implication that the process adheres completely to such logical neatness.

to, if not sufficient for, a creative talent to be productive. Immersion in the problem, time to think, materials with which to try out new ideas, and freedom to fail are all generally accepted requisites. The fact that the process of invention is hard to describe makes it no less a real and identifiable step in the change process sequence.

Engineering Packages and Programs for Operational Use

Basic research findings and inventions share a characteristic in common--for the most part they are unusable by the practitioner. For example, simulation as an instructional tool for administrative training was not invented at the time the Whitman School materials were packaged. The invention per se had existed for years. But the "invention" of simulation as a solution to the problem of studying administration in a "real" setting could easily have died from disuse or never been applied to the problem at all had not the Whitman materials been available in a pre-engineered form. This engineering or packaging need not imply a large, inflexible, all-or-none program; packages may be designed creatively with a substantial degree of adaptability built-in. Regardless of the flexibility of the package, ideas have to be engineered before they are usable in the practicing situation.

Testing and Evaluating Packages and Programs

This step refers to the specific task of testing the effectiveness and efficiency of a particular package or program. Testing and evaluation will of course take place continually in regard to each of the functions of Chart I, but a formal field test is called for (logically) at this particular stage of the process. A concrete recent example is the effort to mount state and national tests of SMSG mathematics materials after they were engineered for classroom use. Depending upon the target

system for the innovation, the evaluation may be more or less extensive. If the program is devised for intra-institutional use, the evaluation need be conducted only on an intra-institutional basis. Packages designed for use across systems will have to strive for conditions of external validity in designing their field trials since they are searching for generalizable solutions to universal operating problems.

The function of evaluation or testing is a complicated process involving far more than the simple product measures which the conventional pre-test-post-test comparison affords. Most particularly, the process takes on added complexity when it is moved from the sterile conditions of the laboratory to the septic conditions of the field. In the latter situation, evaluation literally invites interference with at least as much vigor as experimentation seeks to control interference in the laboratory. There is a great difference between knowing that a prototype carburetor works on the laboratory bench and knowing that it will work under 100,000 miles of hard driving in a real automobile under actual road conditions. Without the hard evidence of a rigorous evaluation program one cannot be sure that an innovation will perform as specified, and the innovator cannot in good conscience offer the innovation as a viable professional alternative.

Informing Target Systems About Packages and Programs

The process of diffusion cannot proceed unless the target system is aware of the existence of the innovation, that is, unless the target has the innovation available as an alternative. The "detail" man, the drug company representative who calls on the practicing physician, has frequently been used as a pure example of this type of functionary in the literature on change. He brings to the physician information about

available packaged innovations--his function may be to sell but in the process he performs the more important role, "to inform."

A relatively dormant field has little need for this function; but with the significant increase in R and D activity in education the function of informing is becoming more important even for sophisticated target systems. Again, the NSF math and science curricula provide a dramatic example. Suddenly faced with a range of alternatives heretofore unheard of, practitioners began clammoring for information about what was available. The standard textbooks which had varied insignificantly in approach and quality were replaced by packaged programs with conflicting conceptual bases. Suddenly, the practitioner was faced with a series of legitimate professional decisions requiring information about the nature of the packages.

Demonstrating the Effectiveness of Packages and Programs

In a recent issue of the Phi Delta Kappan, Professor Lee Cronbach referred to "the disseminator" who, according to Professor Cronbach, ". . . must be an evangelist, not an inquirer. To get school people to discard the familiar and take on the insecurities of the novel, one must be persuasive, and persuaded."[2] Cronbach surely presents the traditional role of demonstration in education in this statement. The typical demonstration school or class was set up to convince the practitioner of something by showing him that it could be done successfully. Unfortunately such demonstrations usually fail because they were out-and-out evangelism. First, they tended to be set up in situations lacking credibility from the practitioners viewpoint, e.g.,

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[2]Lee J. Cronbach, "The Role of the University in Improving Education," Phi Delta Kappan, XLVII, No. 10, (June, 1966), 541

special demonstration schools. Secondly, and more importantly, they did not provide the opportunity for evidential assessment of the innovation on the part of the practitioner.

A true demonstration for professional purposes may have an evangelistic purpose, "to convince," but it cannot go about the process in a huckstering manner. The demonstrator is a tool in the process, not a zealot or reformer. His function is to create credible situations in which the practitioner has the opportunity to gather information about the operation and consequences of the innovation, and in which the practitioner is allowed to render a professional judgment about the efficacy of the innovation for his operational setting. The term "building conviction" on the part of the target system should be employed in the sense of giving evidence or proof; not in the sense of persuasion. Conviction that the innovation will perform as specified does not, of course, lead to automatic adoption, but rather to its consideration as an alternative among all other innovations or existing practices which are also warrantable. The demonstration, as a step in the change process, merely affords the practitioner the opportunity to examine and to assess the invention's operating qualities.

Training Target Systems in the Use of Packages and Programs

This function can be well-illustrated by two recent examples from the field of education. NSF summer institutes were designed to teach teachers how to teach using the new math and science curriculum materials. The UCEA career development seminars which employed the Whitman materials served the same purpose in diffusing that innovation. The training of potential adopters makes self-evident sense on the grounds that the innovation undoubtedly requires new skills and knowledge to make it work

effectively. On psychological grounds, very few persons are so secure that they will risk their reputations by trying an innovation in whose performance they may not be expert. It seems likely that the availability of such in-service training accounts in great measure for the success of such recent innovations as the new curricular materials in mathematics and science.

Although it may not be necessary, a distinction will be made here to focus the attention of the reader on the specific nature of Chart I. Note that the training called for bears little resemblance to conventional in-service education programs for teachers. The intent of the training is not the overall improvement of the practitioner; it is training in the use of a particular package or program which is directed toward the solution of an operational problem confronting the practitioner. Chart I does not include general in-service development, but only the functions necessary to the systematic development and diffusion of innovations in the field.

Servicing and Nurturing Installed Innovations

At some point an innovation must be converted by the target system or receiving institution into a non-invention, that is, a regular part of the on-going operation of the institution. This is usually easier said than done since many, if not most, inventions require something of the institution in the form of physical or personnel resources which were not required by earlier practice. Additionally, the first flash of enthusiasm for the innovation must necessarily wane and the deficit created by lowered efficiency must be compensated for by further resources and support. If an innovation is to achieve continuity, become accepted and valued, and be thoroughly integrated

into normal routines, means must be devised to achieve local servicing and nurturing. Unless such resources are to be made available on a regular basis there was little point in adopting the innovation in the first place.

SECTION II THE ILLOGICAL PROCESSES OF CHANGE IN INSTITUTIONS OF HIGHER EDUCATION

How would most universities or university departments measure up against this depiction of the change process? In gross fashion, most of us would be willing to answer, from our own experience, "not very well." However, more light might be shed on the problem by re-examining each of the necessary functions with this specific orientation in mind.

Gathering Data

This is probably the university's strongest suit among the eight activities. Institutional research has been installed as a common management tool in presidents' offices over the last ten to fifteen years. Individuals engaged in such enterprises have become large enough in number so that the American Council on Education has provided opportunities for them to meet on a national basis. Three years ago The Journal of Experimental Education devoted an issue to current institutional research methods and reports for colleges and universities.[3] There has been an effort on a university-wide basis to gather operational and planning data for the purpose of identifying operational problems.

This movement has had two notable shortcomings--one in terms of locus and the other in terms of focus--which are, perhaps, inter-related.

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[3] L. J. Lins, Editor, Basis for Decision (Madison, Wisconsin: Dembar Educational Research Services, Inc., 1963).

The locus has been almost exclusively at the president's office level with little or no effect at decentralizing or duplicating these resources at the college or department level. This may have led to the focus of most of the work which has been directed toward problems of strictly technical administrative concern. The earlier mentioned Journal of Experimental Education issue, illustratively, treated as its major substantive headings: (1) Cost Analysis, Faculty Load, and Educational Forecasting, (2) Faculty Satisfactions, (3) Facilities Planning, (4) Student Fees and Costs, (5) Student Needs, Satisfactions, and Pre-College and In-College Success, and (6) Summer Activities of Students.[4] There is no argument that these topics are not appropriate for institutional research but they are, for the most part, tangential to the actual processes of teaching, research, and service which form the line functions of the university. They are, also, unlikely to lead to the solution of operating educational problems of paramount concern at the departmental or professorial level, e.g., curricular innovation.

This is not to say that operational and planning data are not gathered except through the designated university office of educational research. The plethora of department level committees attests to the fact that there are other efforts to accumulate data on the operation of the institution (and, occasionally to act upon it). Such groups, much as they would hate to be characterized in this fashion, function quite similarly to their counterparts in elementary and secondary schools--surveying practices in similar institutions and discussing their own experiences with vigor and feeling. They can be distinguished from the institutional research office on several grounds. First, they tend to

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[4] Ibid.

be sporadic in their activity (an ad hoc committee is the commonly accepted terminology). Second, they are typically without resources for systematic data gathering and provide little possibility of effective follow-through. Third, they arise generally from a reaction to a crisis or, less frequently, from the enthusiasm of an individual staff member for improvement, i.e., they lack programmatic thrust.

To summarize, universities have created a peculiar system for gathering operational and planning data. There has been some systematization through university offices of institutional research; but these agencies have been built as far away as possible from the point of effective action, and have, for the most part, dealt with technical administrative concerns. The more significant problems have been left to the reputed program experts, the professors, but they have not been provided with either resources or rewards to engage in systematic institutional research at the college or departmental level.

Inventing and Engineering

There is no reason why offices of institutional research might not be engaged directly in invention and engineering. Some institutional researchers, in fact, see these functions as basic objectives of their office. For example, ". . . institutional research is the methodical study of any problem connected with the operation of the instructional programs of a college or university, together with an attempt to implement a solution to each problem or otherwise effectively utilize the results of such research."[5] For any staff member who has served in

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[5]Philip H. Tyrrell, "Programming the Unknown: Guidelines for the Conduct of Institutional Research," in Basis for Decision, Ed. L. J. Lins (Madison, Wisconsin: Dembar Educational Research Services, Inc., 1963), p. 92.

an institution of higher education, however, this must appear to be the wildest fiction. Such offices, if they deal with problem solution at all, certainly do not deal with the operation of the instructional program to any considerable extent.

But changes do occur, albeit slowly, and new "packages" arrive on the higher education scene; for the most part they seem to come from publishers in the form of new textbooks; or, less frequently, they may come from inter-institutional efforts, e.g., The University Council for Educational Administration. Instances can surely be cited where one or two professors undertook the invention of a new course of study for themselves and their colleagues on an intra-institutional basis. Individual professors, of course, modify their own intra-institutional activities, and devote considerable time to the role of inventors and engineers on whom the publishers rely. Committees by the tens of thousands are established with the avowed intent of solving operating problems or operationalizing solutions to problems. Again they can be characterized as sporadic, lacking in resources, and unsystematic. They simply do not represent any serious effort on the part of the institution to allocate a portion of its resources to self-improvement.

No data are available to support this generalization, but the authors are willing to venture the guess that not one-tenth of one per cent of the resources of major institutions of higher learning in this country is devoted to inventing or operationalizing solutions to the basic problems facing these institutions. And at least at this writing, there is no Course Content Improvement Section of The National Science Foundation to pick up the deficit.

Another method of testing the systematic nature of the change process in the field is to contrast the input and feedback from step-to-step in the process. It seems safe to say that the input from programs of institutional research has little impact on the activities of inventing and engineering in higher education. Conversely, the problems on which operational and planning data are being gathered seem to arise more from strictly administrative concerns than from instructional or educational programs.

Testing and Evaluating

Since there is little systematic invention or engineering, there is little formal evaluation of instructional packages or other innovations in colleges or universities. Textbook publishers do not provide for this type of assessment of their products. Occasional efforts are made by individual professors or departments to assess the efficiency or effectiveness of specific courses or programs which they offer. For the most part, such evaluations are for the purpose of justifying some upcoming change rather than for the purpose of testing and recent innovation. New programs are pretty well assured of success if they pass the test of acceptance applied by the instructor--whatever that may be-- and if they cause no particular furor among the students.

The university, as an institution, would not dare in most cases, to venture an assessment of any innovation of other than a purely technical type. If the president or academic dean suspects the necessity of curricular change, he often employs such direct and forceful methods as revising the catalog, changing from a quarter to a trimester system, or convening a special committee to affirm his judgment but never, never dare he attempt a direct assessment of curricular effectiveness or

efficiency. Whatever else they may be, universities are not centers of objective self-scrutiny and, consequently, it is impossible to assess the relative efficacy of the few curricular innovations which do take place.

There is another dimension of this activity which should be mentioned. In elementary and secondary schools it has been commonplace, particularly in recent years, for innovations to be built and packaged which are supposed to function across systems, e.g., SMGS, PSSC, BSCS, etc. This opens up the possibility of cross-system as well as intra-system evaluation and state and regional evaluation programs of this type have been instituted regularly. There are, of course, similar national innovations and systems of instruction in higher education in the form of popular textbooks but the evaluation on a cross-system basis does not follow. Thus, while little information is gathered in regard to innovations in higher education on an intra-system basis, it can probably be said that none is gathered in regard to the generalizability of such innovations across institutional lines.

Informing

This function presents an anomalous situation in an institution of higher education for the target system which is being made aware of the innovation is the "expert" himself--the professor. The consequences of this "expert dilemma" which will be discussed at greater length in the next section of the paper are felt in all the diffusion categories--a hesitancy to presume that the expert is not already all-knowing. The devices employed conventionally in elementary and secondary schools to inform practitioners about innovations are much less popular in colleges and universities. Professional publications and meetings of professional

associations are seldom devoted to treatises on the practice of the professor's job. They concentrate, instead, on the dissemination of basic scientific knowledge which he is expected to incorporate into his activities. How would a symposium of the American Educational Research Association be received if it were devoted to new instructional materials available in educational research? It might be very useful but no one would be impertinent enough to suggest that it should be held. Or how about an issue of the American Educational Research Journal devoted to new methods of teaching statistics or introductory research courses? Perish the thought, the professor already knows.

On an intra-institutional basis the problem is even more sensitive. If an administrator were to presume to set up such an "informing" program he would be assuming to know more than the expert. Colleagues can and do exchange such information informally and the department is fortunate which has a cosmopolite professor who takes enough interest locally to pass on information which he gains in his travels. The textbook salesman is the professor's equivalent of the detail man in the drug industry and some information exchanges hands in this fashion. The extreme nature of the informing problem is best illustrated by the assistant professor who, even at this neophyte stage, is expected to know his way around his field. Even his own department chairman will hesitate to venture more than he is asked for, since he may be accused of exercising too tight a rein on the young academician.

"Dig-it-out-yourself" appears to be the predominant diffusion strategy in higher education; again, with the exception of dissemination of research findings. In this latter category, storage and retrieval systems are functioning and gaining popularity, for example, the United

States Office of Education's Educational Research Information Center (ERIC). Other special summarizing and abstracting services are offered by inter-agency organizations as a tool for the professor, e.g., U.C.E.A.'s Educational Administration Abstracts. This is a particular type of informing which is accepted within the expert content--informing about scientific inquiry. It is self-evidently useful to the professor in enhancing his scholarship and as a direct aid in the conducting of his own inquiry. It has implications for his teaching and service roles since expertise in such substantive fields is his stock-in-trade. No attempt is being made here to downgrade this informing function. Rather the point being made is that this does not complete the job. There is relevant information on the practice of the professor's role for which no formal communications system exists.

Demonstrating

That the process of demonstrating can be used effectively in stimulating the diffusion of an innovation in higher education was shown clearly by U.C.E.A. in demonstrating simulation as an instructional tool. Occasional examples of this sort are available on an inter-institutional basis but only the most isolated of cases on an intra-institutional level. Obviously, the dearth of concrete innovations to be demonstrated is a factor in limiting the demonstration activity. This is not the whole story, however, since a demonstration again implies an instructor, or expert, or demonstrator who knows more about the innovation than does the professional who is viewing the demonstration. Psychologically the professor is not the most receptive audience that a demonstrator can face.

Three years ago one of the authors observed an eminent researcher on teacher behavior making a presentation to a group of teacher educators

on his research in this field. He was especially interested in alerting them to the utility of his data gathering instrument as a teaching tool for pre-service education students. He had made similar presentations to elementary and secondary school teachers scores of times in which he emphasized the use of the instrument as a self-evaluative technique. On these previous occasions, and during this session, he used a process-centered approach in which the audience defined the major categories of the instrument by applying it to their own behavior. As soon as he began the demonstration the teacher educators began to set up their defenses. Open hostility was soon evident and the grumbling centered on, "treating us like students," and, "wasting our time instead of giving us the definitions." The expert is used to being the demonstrator, not the target toward which the demonstration is directed.

Training

Surely a systematic, planned program of training in the use of innovations is not the practice in institutions of higher education. There have been isolated instances of successful in-service training programs conducted within institutions of higher education. The subject matter treated and the process employed must be carefully chosen--reports on another scholar's research being the most acceptable subject and a free-wheeling seminar the most acceptable process. On an inter-institutional basis such devices as U.C.E.A.'s career development seminars have been accepted even, as in the case of the simulated materials, where they dealt with an instructional innovation.

The concept of necessary re-training during a man's career may be implanted strongly enough in the total culture that such efforts would not be resisted actively by professional personnel if significant innovations were available for diffusion.

Nurturing

Experimental programs die in institutions of higher education just as quickly as they die anywhere else unless some effort is made to institutionalize them. For the most part, they require extra effort and resources which are easier to give while they are still "innovative." The history of foundation-supported efforts to innovate illustrates clearly that the process of diffusion is a fragile one which is easily broken up with the withdrawal of outside support.

For the most part, colleges and universities have paid little attention to institutionalizing innovations. They have been more anxious to "get started" than to "stay going." The former is a highly visible effort which can often be justified as a demonstration for some other institution. The latter has a "dailyness" about it that quickly becomes wearing.

Summary

There has been little systematic attention to the change process within institutions of higher education. Examples of activities related to the process can be cited for every category but they are ad hoc, part-time, poorly supported efforts which hardly represent a planned program of intra-institutional change. They are similar to a badly administered and poorly supported school system in which an observer, by visiting individual classrooms, can find excellent examples of teaching practice in isolated situations, but cannot discern a conscious, planned effort to attain stated educational objectives.

SECTION III CULTURAL FACTORS AND BEHAVIORAL PATTERNS IMPEDING CHANGE IN INSTITUTIONS OF HIGHER EDUCATION

There is little doubt that institutions of higher education in this country are suffering from a dangerously low level of institutional development. The rather laborious exercise represented in the first two sections of this paper merely illustrates a dysfunction experienced by most administrators and staff members in institutions of higher education who have attempted to effect internal change. How many of you sitting here today would be confident of your ability to negotiate a change in your area of educational administration if that change involved alterations in practice by others than yourself--even if you were quite confident that you and all of your colleagues could accept intellectually the necessity for the change?

The posture of the higher education community today in regard to systematic, planned change is neither logical, sound, nor tolerable. As elementary and secondary schools become more vulnerable and responsible to change, their university counterparts become more rigid and less adaptable (except, of course, when the change concerns the elementary and secondary schools). While public education goes about the business of constructing change mechanisms to facilitate the process of change, the university stands pat with its historic vehicles--or lack of them.

The university has represented, traditionally, the role of the leading exponent of change in every arena of social functioning. How, then, can one account for the physician's inability to heal himself? How can one account for the change agent assuming this curious disposition to be so clumsy and irrational in his own approach to planning and implementing needed changes?

If this question were to be posed to the typical professor or university administrator, the usual response would be likely to involve lack of resources. Lack of money would certainly be the major culprit. Excessive teaching loads, lack of personnel, lack of supportive staff, lack of time, would all be identified quickly as major contributors to this sad state of affairs.

But these same responses, given in other institutional settings, would be quickly labeled rationalizations by the university professor or administrator who had been brought in as a consultant. To be sure, no university ever has all of the money it needs but, on the other hand, very few universities have been put out of business by a financial crisis. There can be little doubt that faculty loads in most institutions are already too high; yet there is never an occasion when a committee is not appointed because no one had any time left for it. While lack of resources may be a major contributing cause it is not the ultimate cause. The problem of resources is not an absolute problem but a relative one. Decisions are made to allocate resources elsewhere; they are not available to facilitate planned improvement because they are all earmarked for other purposes.

The question becomes one, then, of accounting for the curious allocation decisions which effectively deprive the process of planned change in institutions of higher education of requisite resources. Somehow this societal institition has adopted a pattern of survival rather than improvement, concentrating its improvement efforts on targets external to itself. The central contention of this section of the paper will be that there are peculiar cultural factors in the university setting from which have grown a set of operating abuses which foster, if not force, decisions inimical to institutional self-improvement.

Legitimate Cultural Factors

In the main the cultural milieu in which the university professor and administrator operates, as unique as it may appear to the outsider, is probably about what it ought to be. This paper is no plea for the dissolution or castigation of this cultural setting on the part of efficiency-oriented management consultants. To the contrary, the problem is not the existence of a legitimately unique culture but the failure to understand the implications of the culture for intra-institutional development (a sine qua non), and the abuse of the culture itself to protect incompetents and incompetence. The legitimate culture needs to be understood and taken into account by any serious practitioner of change in higher education. Ignorance or abuse of the culture dooms a program of planned change out of hand.

A number of crucial cultural functions exist which are probably at the very heart of the university in the sense that universities as they presently function could not exist without them. These include at least the following:

1. The professor as expert. The university is by tradition a community of scholars. A scholar is, as the dictionary indicates, a learned person, one who has done special study in a field. He is, in short, one who knows as much as anyone can about a given discipline or sub-area within the discipline. He is in every sense an "expert."

It is because of this expertness that he can function--that he can attract students, conduct scholarly inquiry, render significant service to his community, and the like. Certainly no one else is in a better position to judge what is important in his field and what is not. No one is in a better position to study it, or communicate about it. The

scholar possesses a kind of professional coherence and integration that could not be duplicated elsewhere.

When one talks about planned change, then, it is natural that the professor should consider himself the ultimate authority on that is best to do. No committee, no administrator, no institutional research agency can, or should, replace him. Indeed, he is his own best judge about when change may be needed, and if it is, what needs to be done. Any attempt to circumvent him insults his expertise, but worse, it is dangerous because it ignores the best source of wisdom available.

This argument cannot be brushed aside lightly. Indeed, professors <u>are</u> experts; the university <u>is</u> the conventional social agency into which scholars are gathered so that society may support and benefit from their work. The mere fact that not all professors are always as expert as we might wish does not obviate the situation. And the fact that this very expertise sometimes gets in the institution's way as it attempts changes is hardly sufficient reason for ignoring it. This resource, however troublesome, must be tapped.

2. <u>Academic freedom</u>. While the argument concerning the meaning and interpretation of the concept of academic freedom has raged for centuries, no one questions seriously the legitimacy of the idea for the university community. The scholar must be free to pursue truth wherever it leads him and to communicate freely about it.

It is common in discussions of research administration to debate an issue sometimes referred to as the "man versus the program" dilemma. Should a research bureau, for example, consider itself a kind of holding company for a group of higher talented individuals, each of whom pursues his own program of inquiry; or should the bureau set some institutional

objectives for itself to which each individual is expected to contribute? It is often argued that the imposition of a program, no matter how democratically it might be arrived at, abridges the freedom of inquiry of the individual. He can no longer range anywhere he pleases; he must constantly be asking whether he is veering too far from the common goal

In a similar way the notion of planned change may be said to abridge the academic freedom of the individual professor. He can no longer pursue any path; there is now a plan. To commit himself even to develop a plan is to acknowledge that he will no longer be a free agent.

Again, there exists a dilemma that must be taken seriously. Is the university in the long run advantaged most by moving in some planned direction or by permitting each scholar to make whatever contribution he feels best able to make?

3. Identification with professional reference group. Ask any professor what he is and he is likely to say, "a physicist" or "a sociologist" rather than "a professor at X university." The professor's sense of identity is best served by relating himself to a professional group rather than to a particular institution at which he happens to be working. When institutional policies or conditions are such as to limit the professor's professional role he is much more likely to move to another institution than he is to try to do something about changing the institution at which he happens to be.

It is not the professor's function to change institutions. He is a scholar and wants to engage in scholarly pursuits. Someone else, perhaps the department chairman or dean, needs to be concerned with making the institution a good place to be.

One must certainly be impressed with the implications of this argument for engaging professorial personnel in intra-institutional improvement programs. There is little point in diverting the professor from doing what he does well and is motivated to do to an activity which which he finds distasteful and which will gain for him no recognition from the professorial reference group to which he relates.

Behaviors Derived From Cultural Factors

The foregoing legitimate cultural factors, although depressants to certain types of institutional change, serve positively to achieve other equally important or more important ends. No one who understands the academic community would suggest seriously that this culture be undermined--it represents, instead, the rules of the game for the change agent in higher education.

However, certain patterns of individual and group behavior which are derivative from these cultural factors, but not crucial in their maintenance, should cause concern and should not enjoy the same immunity from attack. For example:

1. Defense of expertise. Because scholars are experts, and often narrow experts, they can easily be threatened by any development that would make their expertise less secure. Many positive changes that might be proposed make particular areas of expertise less important, or demand a higher level of expertise in other areas. Suddenly a particular professor finds his brand of expertness less valued, or he finds that he must retrain and extend himself.

The shift in educational administration for example, from practical to theoretical considerations left many professors on college faculties without a market for their wares. The shift from a service to a research

orientation in a bureau of educational research similarly incapacitates the service experts. But the notion that any change that seriously challenges expertise, the scholar's chief stock in trade, must be resisted is hardly a behavior pattern that needs to be protected as sacrosanct.

2. Lack of role differentiation. Expertise has a way of becoming generalized. A man whose judgment is weighty in the chemistry laboratory may believe that he is also an expert political analyst. A man who is an excellent teacher may also come to accept himself as an astute researcher, writer, consultant, and the like. When one suggests that some improvement might be useful in one or another of these areas the response is likely to be haughty scorn. Programs intended to produce staff improvements are thought of as presumptuous and patronizing.

This interpretation of content specialization as encompassing not only irrelevant content but all the processes of professional behavior as well is patently absurd. The beginning assistant professor is unlikely to be either a superb teacher, an accomplished researcher, or a brilliant technical writer. And his route to self-improvement is hampered seriously if he must consider himself so to be or if his colleagues consider him so to be. The professor who has had little or no formal training in research need not languish as a case of perpetual cultural deprivation unless his colleagues decide, consciously or unconsciously, to give up on him. Professors are not born but made; their making is impossible without in-service assistance and development programs.

3. Insulation from administration. In many university departments the chairmanship is thought of as an undesirable post to be filled by the least able professor; or to be rotated among the membership

like K.P. The function of an administrator in such situations is not to provide scholarly leadership but to procure whatever resources may be needed by the professorial staff. The administrator who attempts to provide leadership is perceived as overstepping his limits. Every professor on his staff is more expert than he in his own area of competence. Any call for planned improvement is inappropriate and imposes an unreasonable burden. Indeed, the efforts of departmental staff to keep the chairman "in line" may reach conspiratorial heights.

Under these circumstances the administrator and the professional staff are effectively insulated from each other. When followership is eschewed there can be no leadership.

A recent survey of higher education institutions by a staff member of the Bureau of Applied Social Research at Columbia University dramatized this dilemma as follows:

> "What seems to be happening is that academic freedom is more and more interpreted in such a way as to keep the administration out of any truly academic affairs; while the faculty has come to consider administration beneath its dignity. But educational innovations are, by definition, intellectual as well as administrative tasks. And so they have fallen into a no-man's land: the President and his staff wait for the faculty to take the initiative; the professors on their side consider that such matters would take time away from their truly scholarly pursuits. As a result, many universities have a dangerously low level of institutional development."[6]

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[6]Sam D. Sieber, The Organization of Educational Research in the United States, Cooperative Research Project #1974, (New York City: Bureau of Applied Social Research, Columbia University, 1966), pp. 151-152.

4. Goal displacement. The phenomenon of goal displacement is one shared by the university with all non-profit organizations. Long and continued adherence to traditional practice focuses attention on the practice rather than on the end which the practice was intended to serve. Indeed, the ends are forgotten but the practices are maintained for their own sake. In a university, tampering with traditions can be devastating indeed, precisely because there are so many traditions that must be maintained if the university is to retain its identity. Efforts at any change may be perceived as assaults on the veritable bastions of academic honor and integrity.

An outgrowth of this goal displacement phenomenon is the frequent confusion encountered in the academic community between functions and purposes. Ask a professor what his purposes are and he is likely to answer, "to teach," or "to do research," or "to render service." But the grammatical verb form of these responses indicates very clearly that these are not purposes at all but functions--things one does. A call for a new look at purposes is likely to raise the question, "What else needs to be done?"

Behavioral Types In Higher Education

University administration and faculty who persist in following these behavior patterns pose an enormous burden, and an illegitimate one, on their colleagues who are attempting to effect needed changes. As a matter of fact, the extent to which these behaviors are adjudged legitimate is attested to by the reticence of anyone in higher education to push for a systematic, well-supported program of intra-institutional development.

Consideration of these patterns of behavior has suggested a crude characterization of higher education personnel found in different proportion in every institution and sub-unit thereof:

1. Cultural manipulators. Some university faculty and administrators obsessed with the need for living self-contained and uncluttered academic lives, and who are shrewd enough to know how to do it, actually use the cultural imperatives and their derivative ways of behaving to prevent any changes from occurring. Attempts to produce changes are met by this group with charges that academic freedom is being curtailed, that professional expertise is ignored, etc., etc. This group, although hopefully small, can often win the day because the tunes they play are listened to carefully by another, and usually larger group, the

2. Cultural parasites. This group usually consists of an unfortunately large segment of the administration and faculty who really do not wish to be bothered and want things to stay just as they are. They often include the less competent of the staff whose expertise or administrative ability would be easiest to challenge, or the less emotionally secure who cannot stand in "rocked boats." Usually not politically wise enough to know how to manipulate the culture to their own ends, they fall in easily with those that do know. They maintain a facade of academic respectability which is recognized and rejected by the third group, the

3. Cultural prototypes. This university group consists of those visible and productive scholars who epitomize the kind of staff that the culture was designed to nourish. They do engage in intellectual entrepreneurship; they do relate to a national professional reference group; they are the jewels that adorn the faculty and procure for it any

reputation that it may have. Their judgments are sound and their opinions weighty. Unfortunately for the local institution, however, they are rarely concerned with local policies or problems, preferring to maintain their focus on professional issues. The task of local reform is then left to the fourth group, the

4. Cultured progressives. This usually very small group is likely to be viewed as rebels or insurgents by most of the staff--often characterized, with little regard for gerontological accuracy, as "the young Turks." They constantly raise questions, pose problems, or illuminate issues. They are also likely to perceive themselves as guided by principle and refuse to "stoop" to the political level. Thus they are usually easily defeated by the cultural manipulators. Their efforts, moreover, are likely to be ad hoc and rarely are they channeled into any large scale programmed approach to change.

The change agent (whether he be a faculty member or administrator) is faced with quite different problems in dealing with these four groups. His task is to harness and channel the progressives, interest the prototypes, muzzle the manipulators, and awaken the parasites.

SECTION IV SUMMARY AND COMMENTARY

Surely the main theme of this paper is a constant emphasis on planned, systematic change as the only route to healthy institutional development. Colleges and universities today are hardly models for other institutions in our society to emulate. They can, in fact, be viewed as unchanging bastions of conservatism when their own practices are under consideration. The lone attempt to systematize change has come in the form of bureaus of institutional research which assiduously

evade confronting the central problems of the institution. Colleges and universities are fiddling with trivia, e.g., reorganizing the courses of instruction bulletin, switching to a trimester system, changing class hours, etc.; and wasting their human resources on committees ad nauseam while their course content, teaching methods, student advisement, and the like remain rigid and unyielding. Reforms which are agreed upon nearly universally, e.g., current doctoral language examinations, remain untouched because, frankly, no one knows how to effect action by designing something better.

Although it may be true that the American public is extremely tolerant of ineffectiveness in its public institutions, days of reckoning do come. The day of reckoning for the college and university may well cost this insitution its cherished unique cultural setting unless the administration and faculty decide to move on their own. The concept of the multi-versity as a medieval community of individual scholars is absurd. The university is an institution, with unique strengths and peculiar demands, but an institution none the less--and it has institutional as well as individual goals which must be served. Institutional self-improvement in the university is going to require special attention to (1) acceptance of at least minimal application of organizational theory and management processes, (2) utilization of the unique legitimate elements of the institutional culture, and (3) provision of specific and identifiable resources to the process of change.

The Managerial Scholar

The term "managerial scholar" is borrowed from the work of Sam Sieber cited earlier in this paper. It implies no more or less than legitimizing the leadership function in institutions of higher education.

The function need not always be performed by a "manager" or administrator, but, if it is not, then specific provisions must be made for its performance by others. Without ranging into an organizational discussion, the position being assumed is that:

1. Colleges and universities have legitimate institutional goals which transcend the collection of individual goals represented by the scholars on the staff of the institution.
2. The achievement of these goals will require a planned program of change in the institution which will encompass significant and central elements of institutional and individual behavior.
3. This program of change will require direct attention to the processes of change cited earlier in this paper and the institution will have to organize for this purpose.
4. Time will have to be devoted to these tasks by the institutional staff; and since the content of the tasks will affect the intellectual fabric of the institution, this job cannot be "delegated" to administrative flunkeys.
5. Managerial scholarship must replace the present concept of technical management accepted by both faculty and administration in too many institutions of higher learning.

"Using" the Culture

The unique culture of the university did not become accepted and respected because it interfered with change. To the contrary, it became accepted because it nurtured new ideas--their development and diffusion. In the same manner it can now be used to advantage in nurturing

institutional self-improvement. For example, the expertness of the professor is a priceless possession in a program of planned change. As the best source of wisdom in his area, he can be involved from the beginning in identifying the direction of change, inventing new ways of behaving, packaging these for his colleagues, etc. No evidence is more clear from the literature on change than the evidence which supports personal involvement in developing the change on the part of the practitioner who is to use it. But in most fields this is impossible since the practitioner lacks the very expertness possessed by the professor. The key to unlocking this resource may be no more complex than the establishment of a pattern of rewards which recognizes achievement of this sort on the part of the professor, and the provision of the physical and fiscal support needed to behave in this fashion.

Another example could be cited in reference to the external identity of the professor with his professional reference group. Local development activities can be constructed to provide opportunities for generalizability. The cosmopolite in educational administration, for instance, has been supported recently in his efforts to work for local improvement by having the chance to see these efforts integrated in a broader UCEA program with national implications. The same man who would decline to spend a year of his professional career in the development of a local program for training administrators for the great cities will eagerly engage in such a project if it is tied in with a national course content improvement effort on the same topic.

No legitimately productive culture impedes the change process; but aspects of the culture may be and have been ignored in planning change programs in colleges and universities, and illegitimate

manifestations of the culture have been accepted as true reflections of the culture itself.

Providing Resources

In view of what has preceded this section, further insistence on the allocation of resources to support planned change in institutions of higher education may seem redundant. However, presently existing resources are in such short supply that re-emphasis may be in order. Inventions will not occur by themselves. Invention teams, not committees, should be the rule in colleges and universities. And this means time and supporting staff and services and fiscal resources. If an undergraduate curriculum has reached the point where 90 per cent of the contact hours are handled by other than regularly employed professional staff, no committee is needed. A course content improvement effort is called for which will redress the balance by "packaging" what it is that the professorial staff can provide to these students. This will require large blocks of released time--an engineering team. But when the effort is over, the problem will have been solved, mirabile dictu.

If an educational administration area is setting out to train operations researchers for public school systems, they are going to have to build a curriculum from scratch. They need methodological and substantive consultants. They need time and money to devise materials. They may need extra institutional resources. But when they are finished, they will have a respectable curriculum, not a patchwork of what happened to be available in other colleges or departments on campus.

The university office of institutional research will have to become a university center for institutional development which supports and sustains efforts in sub-units to improve themselves.

It is time for "Cultural prototypes" in colleges and universities to begin to assert their leadership. After all, it is their culture which is being threatened by failure--a culture too valuable to lose through neglect.